

WHAT IS CLAIMED IS:

1. Apparatus for embedding information in a digital image digitized from a developed photographic film in response to a film property and information to be embedded into the digital image, comprising
 - a) a scanner for scanning the image on the developed photographic film to produce the digital image;
 - b) means for storing the film property;
 - c) input means for storing information associated with the image and to be embedded in the digital image; and
 - d) means responsive to the stored the film property and the associated information for modifying a predetermined number of pixel values with the associated information in the digital image so that the associated information is embedded in the digital image, wherein the embedded information can subsequently be extracted.
2. The apparatus of claim 1 wherein the modified pixels in the digital image do not substantially alter the quality of the digital image.
3. The apparatus of claim 2 further including means responsive to the modified digital image for printing a human visible image wherein the embedded information is invisible.
4. The apparatus of claim 1 further including means for storing the modified digital image on a medium which can be used for subsequent printing of the modified digital image.
5. The apparatus of claim 1 wherein the embedded information includes authentication information.
6. The apparatus of claim 1 wherein the embedded information includes user input information.
7. The apparatus of claim 1 wherein the embedded information includes sound information.

8. The apparatus of claim 1 wherein the film property includes one or more of the following: the film speed, the film type, the dimensional format of the film, and the exposure conditions.

9. Apparatus for embedding information in a digital image digitized from an exposed photographic film in response to a film property and user provided information to be embedded into the digital image, comprising

a) means for developing the exposed photographic film to produce a developed photographic film and for extracting the film property related to the film;

b) a scanner for scanning the image on the developed photographic film to produce the digital image;

c) means for storing the extracted the film property;

d) user input means for providing and storing information associated with the image and to be embedded in the digital image; and

e) means responsive to the stored the film property and the associated information for modifying a predetermined number of pixel values with the associated information in the digital image so that the associated information is embedded in the digital image, wherein the embedded information can subsequently be extracted.

10. The apparatus of claim 9 wherein the modified pixels in the digital image do not substantially alter the quality of the digital image.

11. The apparatus of claim 9 further including means responsive to the modified digital image for printing a human visible image wherein the embedded information is invisible.

12. The apparatus of claim 9 further including means for storing the modified digital image on a medium which can be used for subsequent printing of the modified digital image.

13. The apparatus of claim 9 wherein the embedded information includes authentication information.

14. The apparatus of claim 9 wherein the embedded information includes sound information.

15. The apparatus of claim 9 wherein the film property includes one or more of the following: the film speed, the film type, the dimensional format of the film, and the exposure conditions.

~~16.~~ Apparatus for producing an image on a receiver which includes invisible embedded information in response to an image digitized from a developed photographic film, comprising

- a) a scanner for scanning the image on the developed photographic film to produce the digital image;
- b) means for storing a film property of the developed photographic film;
- c) user input means for providing and storing information associated with the image and to be embedded in the digital image;
- d) means responsive to the stored the film property and the associated information for modifying a predetermined number of pixel values with the associated information in the digital image so that the associated information is embedded in the digital image; and
- e) printer means responsive to the modified digital image for printing a human visible image on the receiver wherein the embedded information is invisible and can subsequently be extracted.

17. The apparatus of claim 16 wherein the modified pixels in the digital image do not substantially alter the quality of the image on the receiver.

18. The apparatus of claim 16 wherein the embedded information includes authentication information.

19. The apparatus of claim 16 wherein the embedded information includes sound information.

20. The apparatus of claim 16 wherein the film property includes one or more of the following: the film speed, the film type, the dimensional format of the film, and the exposure conditions.